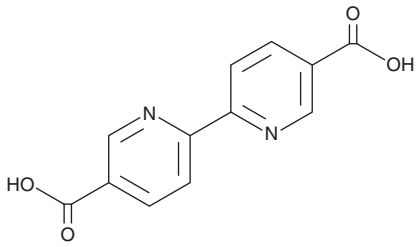
PRODUCT INFORMATION

2,2'-Bipyridine-5,5'-dicarboxylic Acid

Item No. 29472

CAS Registry No.:	1802-30-8
Synonyms:	2,2'-Bipyridine-5,5'-dicarboxylate, PD 086195
MF:	$C_{12}H_8N_2O_4$
FW:	244.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 249, 298 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

2,2'-Bipyridine-5,5'-dicarboxylic acid is supplied as a solid. A stock solution may be made by dissolving the 2,2'-bipyridine-5,5'-dicarboxylic acid in the solvent of choice, which should be purged with an inert gas. 2,2'-Bipyridine-5,5'-dicarboxylic acid is slightly soluble in DMSO.

2,2'-Bipyridine-5,5'-dicarboxylic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 2,2'-bipyridine-5,5'-dicarboxylic acid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 2,2'-Bipyridine-5,5'-dicarboxylic acid has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

2,2'-Bipyridine-5,5'-dicarboxylic acid is a heterocyclic building block.[1,2] It has been used in the synthesis of metal-organic frameworks for water oxidation, organic photocatalysis, and carbon dioxide reduction.

References

1. Bloch, E.D., Britt, D., Lee, C., *et al.* Metal insertion in a microporous metal-organic framework lined with 2,2'-bipyridine. *J. Am. Chem. Soc.* **132(41)**, 14382-14384 (2010).
2. Wang, C., Xie, Z., deKrafft, K.E., *et al.* Doping metal-organic frameworks for water oxidation, carbon dioxide reduction, and organic photocatalysis. *J. Am. Chem. Soc.* **133(34)**, 13445-13454 (2011).

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